FILE CTC81B20

ENGLISH

ZONED / NON - CONDENSEE

TABLE OF CONTENTS

INTRODUCTION

DOCUMENTATION FOR CENSUS DATA ON MAGNETIC TAPE

This documentation is divided into two parts.

Part 1 is available for any tape file produced from the census micro-data base using the STATPAK retrieval system.

Part 2 is available only with census User Summary Tape files and special requests on tape produced by the Customer Services Section.

Part 1

Introduction

In the following documentation each tabulation is referred to as a data matrix. Each characteristic or variable such as age, sex, etc., is referred to as a dimension or subscript. Each dimension is associated with multiple entries; for example, the dimension sex could be associated with entries male, female, total.

Part 1 consists of four sections

Section 1 shows:

- that each data matrix has a title associated with a matrix name. The latter is a mnemonic code up to eight characters long. The documentation usually refers to a tabulation by its mnemonic code;
- the total number of data cells in a matrix;
- the largest absolute value of any cell in the matrix which may be used for data validation and programming purposes.

Please Note:

The cells contain either integer or decimal digits with decimal point which is implied.

If overflows are encountered, the overflow messages appear in the first section and when the program interrupts, the other sections may be either partially or not at all printed.

Section 2 shows:

- the general file information enabling computer usage of the file.

Where necessary a matrix may be written out on more than one logical record. In that case, the dimension(s) (variable(s)) on which the matrix is split is (are) identified as well as the order in which the matrix is actually written out on magnetic tape.

Section 3 contains:

- a PL/1 declaration statement - this statement should be of special interest to users who wish to understand how a multi-dimension matrix (e.g., age by sex by marital status is a three dimensional matrix) is laid out as a linear sequential record on magnetic tape.

Each logical record starts with a 52-character geographic identification (see Section B). In the case of a matrix that is split and thus written over multiple records on tape, it is followed by sub-matrix identification(s), matrix name and matrix size. Then come the entries for each dimension (subscript) of the matrix.

Section 4 contains:

- a detailed record layout of the file;

- the identification part which is the same as on the PL/1 declaration statement (see Section 3);

- the content of each cell or field associated with the matrix name to which it belongs, the format, the first and last positions of each field in the record, the number of bytes (1 byte = 8 bits = 1 or 2 digits or 1 character depending on the format), the precision or number of digits stored and the scale where applicable, which gives the number of decimal places. (Note: The decimal point is implied - not written on tape.)

Part 2

Section A contains:

- the table titles;

- the legends (entries or class intervals associated with each variable, e.g., sex (3): male, female, total).

Note: This section is available only with the census User Summary Tape documentation.

Section B contains:

- the file sequence and the complete definitions of the geographic area codes which exist on the file.

Section C contains:

- the geographic organization of the User Summary Tape files and microfiche for each series produced for the 1981 Census.

Section D contains:

- a brief description of the statistical and confidentiality methodology used during the process of retrieval of data from the census micro-data base;
- a list of reference manuals which provide more detailed information on some of the topics briefly described in this documentation.

For further information, please contact:

CANSIM DIVISION
Statistics Canada
Ottawa, K1A 0Z8
Tel.: (613) 995-0097
995-7406

Special Note: Positive or negative sign

If the character mode is packed, the last four (4) bits of the last byte of a data cell contain the sign.

If the character mode is numeric (external), the complete first byte of a data cell contains the sign.

Section E contains:

- information on any peculiarities related to geography or variables that are essential to the interpretation of data.

SECTION 1

FIGURES INFORMATION

File Name: CTC81B20

Largest Absolute Value: 18,609,280

SECTION 2

GENERAL FILE INFORMATION

Format: ZONED

The File Name is: CTC81B20

The Data Control Block is:

The Record Format	=	FB
Logical Record Length	=	1,834
Geographical Identification	=	52
Data Cells Length	=	1,782
The Blocksize	=	11,004

Number of Cells for Each Record = 198

Total Number of Records Written Out = 5,121

****
* SUMMARY FILE CREATED *
* GEOGRAPHICAL IDENTIFICATION *
****

FIELD#	START POS#	END POS#		DESCRIPTION
1	1	1	R	REGION
2	1	2	RP	REGION/PROVINCE
3	1	5	RCA	REGION/PROV/CMACA
4	2	2	P	PROVINCE
5	3	5	CA	CENSUS METROP. AREA/CENSUS AGGLOMERATION
6	6	12	CTPN	CT/PCT NUMBER
7	13	16	CT	CENSUS TRACT/PROVINCIAL CENSUS TRACT
8	17	17	CASL	CMACA SELECTOR
9	18	18	CASZ	CMACA SIZE
10	19	50	CANM	CMA/CA NAME

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

TABLE TITLE: CTC81B21 - POPULATION 15 YEARS AND OVER BY SCHOOL ATTENDANCE(4) AND SEX(3): SHOWING HIGHEST LEVEL OF SCHOOLING(11) - 1981

TABLE NAME	FORMAT	#INTEGERS	#DECIMALS	SIGN	BYTES/CELL
CTC81B21	NUMERIC	9	0	WHOLE BYTE ON LEFT	9

FIELD#	START POS#	END POS#	DESCRIPTION
			POPULATION 15 YEARS AND OVER
			TOTAL
11	53	61	POPULATION 15 YEARS AND OVER
12	62	70	LESS THAN GRADE 9
13	71	79	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
14	80	88	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
15	89	97	TRADES CERTFICATE OR DIPLOMA
16	98	106	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
17	107	115	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
18	116	124	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
19	125	133	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
20	134	142	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
21	143	151	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
22	152	160	POPULATION 15 YEARS AND OVER
23	161	169	LESS THAN GRADE 9
24	170	178	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
25	179	187	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
26	188	196	TRADES CERTFICATE OR DIPLOMA
27	197	205	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
28	206	214	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
29	215	223	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
30	224	232	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
31	233	241	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
32	242	250	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
33	251	259	POPULATION 15 YEARS AND OVER
34	260	268	LESS THAN GRADE 9
35	269	277	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
36	278	286	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
37	287	295	TRADES CERTFICATE OR DIPLOMA
38	296	304	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
39	305	313	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
40	314	322	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
41	323	331	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
42	332	340	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
43	341	349	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			NOT ATTENDING SCHOOL
			TOTAL
44	350	358	POPULATION 15 YEARS AND OVER
45	359	367	LESS THAN GRADE 9
46	368	376	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
47	377	385	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
48	386	394	TRADES CERTFICATE OR DIPLOMA
49	395	403	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
50	404	412	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
51	413	421	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
52	422	430	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
53	431	439	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA

SUMMARY FILE CREATED
TABLE(S) DESCRIPTION

FIELD#	START POS#	END POS#	DESCRIPTION
54	440	448	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
55	449	457	POPULATION 15 YEARS AND OVER
56	458	466	LESS THAN GRADE 9
57	467	475	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
58	476	484	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
59	485	493	TRADES CERTFICATE OR DIPLOMA
60	494	502	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
61	503	511	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
62	512	520	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
63	521	529	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
64	530	538	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
65	539	547	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
66	548	556	POPULATION 15 YEARS AND OVER
67	557	565	LESS THAN GRADE 9
68	566	574	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
69	575	583	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
70	584	592	TRADES CERTFICATE OR DIPLOMA
71	593	601	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
72	602	610	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
73	611	619	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
74	620	628	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
75	629	637	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
76	638	646	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			ATTENDING SCHOOL FULL-TIME
			TOTAL

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
77	647	655	POPULATION 15 YEARS AND OVER
78	656	664	LESS THAN GRADE 9
79	665	673	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
80	674	682	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
81	683	691	TRADES CERTFICATE OR DIPLOMA
82	692	700	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
83	701	709	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
84	710	718	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
85	719	727	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
86	728	736	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
87	737	745	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
88	746	754	POPULATION 15 YEARS AND OVER
89	755	763	LESS THAN GRADE 9
90	764	772	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
91	773	781	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
92	782	790	TRADES CERTFICATE OR DIPLOMA
93	791	799	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
94	800	808	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
95	809	817	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
96	818	826	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
97	827	835	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
98	836	844	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
99	845	853	POPULATION 15 YEARS AND OVER
100	854	862	LESS THAN GRADE 9
101	863	871	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
102	872	880	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
103	881	889	TRADES CERTFICATE OR DIPLOMA
104	890	898	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
105	899	907	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
106	908	916	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
107	917	925	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
108	926	934	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
109	935	943	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			ATTENDING SCHOOL PART-TIME
			TOTAL
110	944	952	POPULATION 15 YEARS AND OVER
111	953	961	LESS THAN GRADE 9
112	962	970	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
113	971	979	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
114	980	988	TRADES CERTFICATE OR DIPLOMA
115	989	997	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
116	998	1006	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
117	1007	1015	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
118	1016	1024	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
119	1025	1033	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
120	1034	1042	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
121	1043	1051	POPULATION 15 YEARS AND OVER
122	1052	1060	LESS THAN GRADE 9
123	1061	1069	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
124	1070	1078	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
125	1079	1087	TRADES CERTFICATE OR DIPLOMA

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
126	1088	1096	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
127	1097	1105	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
128	1106	1114	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
129	1115	1123	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
130	1124	1132	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
131	1133	1141	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
132	1142	1150	POPULATION 15 YEARS AND OVER
133	1151	1159	LESS THAN GRADE 9
134	1160	1168	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
135	1169	1177	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
136	1178	1186	TRADES CERTFICATE OR DIPLOMA
137	1187	1195	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
138	1196	1204	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
139	1205	1213	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
140	1214	1222	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
141	1223	1231	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
142	1232	1240	UNIV. WITH BACHELOR'S DEGREE OR HIGHER

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

TABLE TITLE: CTC81B22 - POPULATION 15 YEARS AND OVER BY SCHOOL ATTENDANCE(2) AND SEX(3): SHOWING HIGHEST DEGREE: CERTIFICATE OR DIPLOMA(11) - 1981

TABLE NAME	FORMAT	#INTEGERS	#DECIMALS	SIGN	BYTES/CELL
CTC81B22	NUMERIC	9	0	WHOLE BYTE ON LEFT	9

FIELD#	START POS#	END POS#	DESCRIPTION
			ATTENDING SCHOOL FULL-TIME
			TOTAL
143	1241	1249	POPULATION 15 YEARS AND OVER
144	1250	1258	NO DEGREE CERTIFICATE OR DIPLOMA
145	1259	1267	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
146	1268	1276	TRADES CERTIFICATE OR DIPLOMA
147	1277	1285	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
148	1286	1294	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
149	1295	1303	BACHELOR'S DEGREE
150	1304	1312	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
151	1313	1321	MEDICAL DEGREE
152	1322	1330	MASTER'S DEGREE
153	1331	1339	EARNED DOCTORATE
			MALES
154	1340	1348	POPULATION 15 YEARS AND OVER
155	1349	1357	NO DEGREE CERTIFICATE OR DIPLOMA
156	1358	1366	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
157	1367	1375	TRADES CERTIFICATE OR DIPLOMA
158	1376	1384	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
159	1385	1393	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
160	1394	1402	BACHELOR'S DEGREE
161	1403	1411	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL

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*************************************************
*    S U M M A R Y   F I L E   C R E A T E D    *
*      T A B L E(S)   D E S C R I P T I O N      *
*************************************************
```


FIELD#	START POS#	END POS#	DESCRIPTION
162	1412	1420	MEDICAL DEGREE
163	1421	1429	MASTER'S DEGREE
164	1430	1438	EARNED DOCTORATE
			FEMALES
165	1439	1447	POPULATION 15 YEARS AND OVER
166	1448	1456	NO DEGREE CERTIFICATE OR DIPLOMA
167	1457	1465	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
168	1466	1474	TRADES CERTIFICATE OR DIPLOMA
169	1475	1483	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
170	1484	1492	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
171	1493	1501	BACHELOR'S DEGREE
172	1502	1510	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
173	1511	1519	MEDICAL DEGREE
174	1520	1528	MASTER'S DEGREE
175	1529	1537	EARNED DOCTORATE
			NOT ATTENDING SCHOOL FULL-TIME
			TOTAL
176	1538	1546	POPULATION 15 YEARS AND OVER
177	1547	1555	NO DEGREE CERTIFICATE OR DIPLOMA
178	1556	1564	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
179	1565	1573	TRADES CERTIFICATE OR DIPLOMA
180	1574	1582	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
181	1583	1591	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
182	1592	1600	BACHELOR'S DEGREE
183	1601	1609	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
184	1610	1618	MEDICAL DEGREE
185	1619	1627	MASTER'S DEGREE

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
186	1628	1636	EARNED DOCTORATE
			MALES
187	1637	1645	POPULATION 15 YEARS AND OVER
188	1646	1654	NO DEGREE CERTIFICATE OR DIPLOMA
189	1655	1663	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
190	1664	1672	TRADES CERTIFICATE OR DIPLOMA
191	1673	1681	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
192	1682	1690	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
193	1691	1699	BACHELOR'S DEGREE
194	1700	1708	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
195	1709	1717	MEDICAL DEGREE
196	1718	1726	MASTER'S DEGREE
197	1727	1735	EARNED DOCTORATE
			FEMALES
198	1736	1744	POPULATION 15 YEARS AND OVER
199	1745	1753	NO DEGREE CERTIFICATE OR DIPLOMA
200	1754	1762	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
201	1763	1771	TRADES CERTIFICATE OR DIPLOMA
202	1772	1780	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
203	1781	1789	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
204	1790	1798	BACHELOR'S DEGREE
205	1799	1807	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
206	1808	1816	MEDICAL DEGREE
207	1817	1825	MASTER'S DEGREE
208	1826	1834	EARNED DOCTORATE

```
*********************************************
*  S U M M A R Y   F I L E   C R E A T E D  *
* P L I   R E C O R D   D E S C R I P T I O N *
*                                           *
*********************************************

DCL 1 CTC81B20                                            ,
    5 R                               CHAR( 1)            ,
    5 P                               CHAR( 1)            ,
    5 CA                              CHAR( 3)            ,
    5 CTPN                            CHAR( 7)            ,
    5 CT                              CHAR( 4)            ,
    5 CASL                            CHAR( 1)            ,
    5 CASZ                            CHAR( 1)            ,
    5 CANM                            CHAR(32)            ,
    5 FILL1                           CHAR( 2)            ,
    5 CTC81B21   (  4,  3, 11)        PICTURE 'S( 9)9V(0)9',
    /*      DEFINITION FOR ENTRIES IN SUBSCRIPT# 1
       ENTRY#  DESCRIPTION
          1    POPULATION 15 YEARS AND OVER

          2    NOT ATTENDING SCHOOL

          3    ATTENDING SCHOOL FULL-TIME

          4    ATTENDING SCHOOL PART-TIME
            DEFINITION FOR ENTRIES IN SUBSCRIPT# 2
       ENTRY#  DESCRIPTION
          1    TOTAL

          2    MALES

          3    FEMALES
            DEFINITION FOR ENTRIES IN SUBSCRIPT# 3
       ENTRY#  DESCRIPTION
```

```
*******************************************
*  S U M M A R Y   F I L E   C R E A T E D  *
* P L I   R E C O R D   D E S C R I P T I O N *
*                                             *
*******************************************
      1   POPULATION 15 YEARS AND OVER

      2   LESS THAN GRADE 9

      3   GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT

      4   GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.

      5   TRADES CERTFICATE OR DIPLOMA

      6   NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA

      7   NON-UNIV. WITH TRADES CERT. OR DIPLOMA

      8   NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA

      9   UNIV. WITHOUT CERT. DILPOMA OR DEGREE

     10   UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA

     11   UNIV. WITH BACHELOR'S DEGREE OR HIGHER

                                                        */
5 CTC81B22   (  2,  3, 11)              PICTURE 'S( 9)9V(0)9';
/*       DEFINITION FOR ENTRIES IN SUBSCRIPT# 1
     ENTRY#  DESCRIPTION
         1   ATTENDING SCHOOL FULL-TIME

         2   NOT ATTENDING SCHOOL FULL-TIME
         DEFINITION FOR ENTRIES IN SUBSCRIPT# 2
     ENTRY#  DESCRIPTION
         1   TOTAL

         2   MALES
```

```
*******************************************
*  S U M M A R Y   F I L E   C R E A T E D  *
* P L I   R E C O R D   D E S C R I P T I O N *
*                                           *
*******************************************
```

3 FEMALES

DEFINITION FOR ENTRIES IN SUBSCRIPT# 3

ENTRY#	DESCRIPTION
1	POPULATION 15 YEARS AND OVER
2	NO DEGREE CERTIFICATE OR DIPLOMA
3	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
4	TRADES CERTIFICATE OR DIPLOMA
5	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
6	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
7	BACHELOR'S DEGREE
8	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
9	MEDICAL DEGREE
10	MASTER'S DEGREE
11	EARNED DOCTORATE

*/

*** NORMAL END ***

PART 2

SECTION 1

FIGURES INFORMATION

File Name: CTC81B20

Largest Absolute Value: 18,609,280

SECTION 2

GENERAL FILE INFORMATION

Format: ZONED

The File Name is: CTCS1B20

The Data Control Block is:

The Record Format	=	FB
Logical Record Length	=	1,834
Geographical Identification	=	92
Data Cells Length	=	1,792
The Blocksize	=	11,004

Number of Cells for Each Record = 198

Total Number of Records Written Out = 5,121

****
* SUMMARY FILE CREATED *
* GEOGRAPHICAL IDENTIFICATION *
****

FIELD#	START POS#	END POS#	DESCRIPTION	
1	1	1	R	REGION
2	1	2	RP	REGION/PROVINCE
3	1	5	RCA	REGION/PROV/CMACA
4	2	2	P	PROVINCE
5	3	5	CA	CENSUS METROP. AREA/CENSUS AGGLOMERATION
6	6	12	CTPN	CT/PCT NUMBER
7	13	16	CT	CENSUS TRACT/PROVINCIAL CENSUS TRACT
8	17	17	CASL	CMACA SELECTOR
9	18	18	CASZ	CMACA SIZE
10	19	50	CANM	CMA/CA NAME

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

TABLE TITLE: CTC81B21 - POPULATION 15 YEARS AND OVER BY SCHOOL ATTENDANCE(4) AND SEX(3): SHOWING HIGHEST LEVEL OF SCHOOLING(11) - 1981

TABLE NAME	FORMAT	#INTEGERS	#DECIMALS	SIGN	BYTES/CELL
CTC81B21	NUMERIC	9	0	WHOLE BYTE ON LEFT	9

FIELD#	START POS#	END POS#	DESCRIPTION
			POPULATION 15 YEARS AND OVER
			TOTAL
11	53	61	POPULATION 15 YEARS AND OVER
12	62	70	LESS THAN GRADE 9
13	71	79	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
14	80	88	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
15	89	97	TRADES CERTFICATE OR DIPLOMA
16	98	106	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
17	107	115	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
18	116	124	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
19	125	133	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
20	134	142	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
21	143	151	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
22	152	160	POPULATION 15 YEARS AND OVER
23	161	169	LESS THAN GRADE 9
24	170	178	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
25	179	187	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
26	188	196	TRADES CERTFICATE OR DIPLOMA
27	197	205	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
28	206	214	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
29	215	223	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA

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* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
30	224	232	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
31	233	241	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
32	242	250	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
33	251	259	POPULATION 15 YEARS AND OVER
34	260	268	LESS THAN GRADE 9
35	269	277	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
36	278	286	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
37	287	295	TRADES CERTFICATE OR DIPLOMA
38	296	304	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
39	305	313	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
40	314	322	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
41	323	331	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
42	332	340	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
43	341	349	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			NOT ATTENDING SCHOOL
			TOTAL
44	350	358	POPULATION 15 YEARS AND OVER
45	359	367	LESS THAN GRADE 9
46	368	376	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
47	377	385	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
48	386	394	TRADES CERTFICATE OR DIPLOMA
49	395	403	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
50	404	412	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
51	413	421	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
52	422	430	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
53	431	439	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA

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* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
54	440	448	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
55	449	457	POPULATION 15 YEARS AND OVER
56	458	466	LESS THAN GRADE 9
57	467	475	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
58	476	484	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
59	485	493	TRADES CERTFICATE OR DIPLOMA
60	494	502	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
61	503	511	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
62	512	520	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
63	521	529	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
64	530	538	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
65	539	547	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
66	548	556	POPULATION 15 YEARS AND OVER
67	557	565	LESS THAN GRADE 9
68	566	574	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
69	575	583	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
70	584	592	TRADES CERTFICATE OR DIPLOMA
71	593	601	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
72	602	610	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
73	611	619	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
74	620	628	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
75	629	637	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
76	638	646	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			ATTENDING SCHOOL FULL-TIME
			TOTAL

SUMMARY FILE CREATED
TABLE(S) DESCRIPTION

FIELD#	START POS#	END POS#	DESCRIPTION
77	647	655	POPULATION 15 YEARS AND OVER
78	656	664	LESS THAN GRADE 9
79	665	673	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
80	674	682	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
81	683	691	TRADES CERTFICATE OR DIPLOMA
82	692	700	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
83	701	709	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
84	710	718	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
85	719	727	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
86	728	736	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
87	737	745	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
88	746	754	POPULATION 15 YEARS AND OVER
89	755	763	LESS THAN GRADE 9
90	764	772	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
91	773	781	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
92	782	790	TRADES CERTFICATE OR DIPLOMA
93	791	799	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
94	800	808	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
95	809	817	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
96	818	826	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
97	827	835	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
98	836	844	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
99	845	853	POPULATION 15 YEARS AND OVER
100	854	862	LESS THAN GRADE 9
101	863	871	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT

SUMMARY FILE CREATED
TABLE(S) DESCRIPTION

FIELD#	START POS#	END POS#	DESCRIPTION
102	872	880	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
103	881	889	TRADES CERTFICATE OR DIPLOMA
104	890	898	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
105	899	907	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
106	908	916	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
107	917	925	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
108	926	934	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
109	935	943	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			ATTENDING SCHOOL PART-TIME
			TOTAL
110	944	952	POPULATION 15 YEARS AND OVER
111	953	961	LESS THAN GRADE 9
112	962	970	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
113	971	979	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
114	980	988	TRADES CERTFICATE OR DIPLOMA
115	989	997	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
116	998	1006	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
117	1007	1015	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
118	1016	1024	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
119	1025	1033	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
120	1034	1042	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			MALES
121	1043	1051	POPULATION 15 YEARS AND OVER
122	1052	1060	LESS THAN GRADE 9
123	1061	1069	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
124	1070	1078	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
125	1079	1087	TRADES CERTFICATE OR DIPLOMA

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* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
126	1088	1096	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
127	1097	1105	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
128	1106	1114	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
129	1115	1123	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
130	1124	1132	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
131	1133	1141	UNIV. WITH BACHELOR'S DEGREE OR HIGHER
			FEMALES
132	1142	1150	POPULATION 15 YEARS AND OVER
133	1151	1159	LESS THAN GRADE 9
134	1160	1168	GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT
135	1169	1177	GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.
136	1178	1186	TRADES CERTFICATE OR DIPLOMA
137	1187	1195	NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA
138	1196	1204	NON-UNIV. WITH TRADES CERT. OR DIPLOMA
139	1205	1213	NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA
140	1214	1222	UNIV. WITHOUT CERT. DILPOMA OR DEGREE
141	1223	1231	UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA
142	1232	1240	UNIV. WITH BACHELOR'S DEGREE OR HIGHER

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

TABLE TITLE: CTC81B22 - POPULATION 15 YEARS AND OVER BY SCHOOL ATTENDANCE(2) AND SEX(3): SHOWING HIGHEST DEGREE: CERTIFICATE OR DIPLOMA(11) - 1981

TABLE NAME	FORMAT	#INTEGERS	#DECIMALS	SIGN	BYTES/CELL
CTC81B22	NUMERIC	9	0	WHOLE BYTE ON LEFT	9

FIELD#	START POS#	END POS#	DESCRIPTION
			ATTENDING SCHOOL FULL-TIME
			TOTAL
143	1241	1249	POPULATION 15 YEARS AND OVER
144	1250	1258	NO DEGREE CERTIFICATE OR DIPLOMA
145	1259	1267	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
146	1268	1276	TRADES CERTIFICATE OR DIPLOMA
147	1277	1285	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
148	1286	1294	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
149	1295	1303	BACHELOR'S DEGREE
150	1304	1312	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
151	1313	1321	MEDICAL DEGREE
152	1322	1330	MASTER'S DEGREE
153	1331	1339	EARNED DOCTORATE
			MALES
154	1340	1348	POPULATION 15 YEARS AND OVER
155	1349	1357	NO DEGREE CERTIFICATE OR DIPLOMA
156	1358	1366	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
157	1367	1375	TRADES CERTIFICATE OR DIPLOMA
158	1376	1384	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
159	1385	1393	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
160	1394	1402	BACHELOR'S DEGREE
161	1403	1411	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL

SUMMARY FILE CREATED
TABLE(S) DESCRIPTION

FIELD#	START POS#	END POS#	DESCRIPTION
162	1412	1420	MEDICAL DEGREE
163	1421	1429	MASTER'S DEGREE
164	1430	1438	EARNED DOCTORATE
			FEMALES
165	1439	1447	POPULATION 15 YEARS AND OVER
166	1448	1456	NO DEGREE CERTIFICATE OR DIPLOMA
167	1457	1465	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
168	1466	1474	TRADES CERTIFICATE OR DIPLOMA
169	1475	1483	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
170	1484	1492	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
171	1493	1501	BACHELOR'S DEGREE
172	1502	1510	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
173	1511	1519	MEDICAL DEGREE
174	1520	1528	MASTER'S DEGREE
175	1529	1537	EARNED DOCTORATE
			NOT ATTENDING SCHOOL FULL-TIME
			TOTAL
176	1538	1546	POPULATION 15 YEARS AND OVER
177	1547	1555	NO DEGREE CERTIFICATE OR DIPLOMA
178	1556	1564	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
179	1565	1573	TRADES CERTIFICATE OR DIPLOMA
180	1574	1582	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
181	1583	1591	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
182	1592	1600	BACHELOR'S DEGREE
183	1601	1609	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
184	1610	1618	MEDICAL DEGREE
185	1619	1627	MASTER'S DEGREE

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* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

FIELD#	START POS#	END POS#	DESCRIPTION
186	1628	1636	EARNED DOCTORATE
			MALES
187	1637	1645	POPULATION 15 YEARS AND OVER
188	1646	1654	NO DEGREE CERTIFICATE OR DIPLOMA
189	1655	1663	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
190	1664	1672	TRADES CERTIFICATE OR DIPLOMA
191	1673	1681	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
192	1682	1690	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
193	1691	1699	BACHELOR'S DEGREE
194	1700	1708	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
195	1709	1717	MEDICAL DEGREE
196	1718	1726	MASTER'S DEGREE
197	1727	1735	EARNED DOCTORATE
			FEMALES
198	1736	1744	POPULATION 15 YEARS AND OVER
199	1745	1753	NO DEGREE CERTIFICATE OR DIPLOMA
200	1754	1762	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
201	1763	1771	TRADES CERTIFICATE OR DIPLOMA
202	1772	1780	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
203	1781	1789	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
204	1790	1798	BACHELOR'S DEGREE
205	1799	1807	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
206	1808	1816	MEDICAL DEGREE
207	1817	1825	MASTER'S DEGREE
208	1826	1834	EARNED DOCTORATE

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*************************************************
*  SUMMARY  FILE  CREATED  *
*PLI  RECORD  DESCRIPTION *
*                         *
*************************************************

DCL 1 CTC81B20
    5 R                                  CHAR( 1)          ,
    5 P                                  CHAR( 1)          ,
    5 CA                                 CHAR( 3)          ,
    5 CTPN                               CHAR( 7)          ,
    5 CT                                 CHAR( 4)          ,
    5 CASL                               CHAR( 1)          ,
    5 CASZ                               CHAR( 1)          ,
    5 CANM                               CHAR(32)          ,
    5 FILL1                              CHAR( 2)          ,
    5 CTC81B21   (  4,  3, 11)           PICTURE 'S( 9)9V(0)9',
    /*       DEFINITION FOR ENTRIES IN SUBSCRIPT# 1
         ENTRY#  DESCRIPTION
             1   POPULATION 15 YEARS AND OVER

             2   NOT ATTENDING SCHOOL

             3   ATTENDING SCHOOL FULL-TIME

             4   ATTENDING SCHOOL PART-TIME
            DEFINITION FOR ENTRIES IN SUBSCRIPT# 2
         ENTRY#  DESCRIPTION
             1   TOTAL

             2   MALES

             3   FEMALES
            DEFINITION FOR ENTRIES IN SUBSCRIPT# 3
         ENTRY#  DESCRIPTION
```

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          ************************************************
          *  SUMMARY  FILE  CREATED  *
          * PLI  RECORD  DESCRIPTION *
          *                          *
          ************************************************
        1   POPULATION 15 YEARS AND OVER

        2   LESS THAN GRADE 9

        3   GRADES 9-13 WITHOUT SEC. SCHOOL GRAD. CERT

        4   GRADES 9-13 WITH SEC. SHOOL GRAD. CERT.

        5   TRADES CERTFICATE OR DIPLOMA

        6   NON-UNIV. WITHOUT CERTIFICATE OR DIPLOMA

        7   NON-UNIV. WITH TRADES CERT. OR DIPLOMA

        8   NON-UNIV. WITH NON-UNIV. CERT. OR DIPLOMA

        9   UNIV. WITHOUT CERT. DILPOMA OR DEGREE

       10   UNIV WITH UNIV OR NON-UNIV CERT OR DIPLOMA

       11   UNIV. WITH BACHELOR'S DEGREE OR HIGHER

                                                              */
5 CTC81B22   (  2,  3, 11)  *                 PICTURE 'S( 9)9V(0)9';
/*      DEFINITION FOR ENTRIES IN SUBSCRIPT# 1
     ENTRY#  DESCRIPTION
        1   ATTENDING SCHOOL FULL-TIME

        2   NOT ATTENDING SCHOOL FULL-TIME
        DEFINITION FOR ENTRIES IN SUBSCRIPT# 2
     ENTRY#  DESCRIPTION
        1   TOTAL

        2   MALES
```

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**********************************************
*  SUMMARY  FILE  CREATED                    *
*PL I  RECORD  DESCRIPTION                    *
*                                             *
**********************************************
```

3 FEMALES

DEFINITION FOR ENTRIES IN SUBSCRIPT# 3

ENTRY#	DESCRIPTION
1	POPULATION 15 YEARS AND OVER
2	NO DEGREE CERTIFICATE OR DIPLOMA
3	SECONDARY (HIGH) SCHOOL GRADUATION CERT.
4	TRADES CERTIFICATE OR DIPLOMA
5	OTHER NON-UNIVERSITY CERT. OR DIPLOMA
6	UNIV. CERT. OR DIPLOMA BELOW BACH. LEVEL
7	BACHELOR'S DEGREE
8	UNIV. CERT. OR DIPLOMA ABOVE BACH. LEVEL
9	MEDICAL DEGREE
10	MASTER'S DEGREE
11	EARNED DOCTORATE

*/

*** NORMAL END ***

SECTION A

FILE CONTENT

File CTC81B20

Table Titles

CTC81B21 Population 15 years and over by school attendance (4) and sex (3), showing highest level of schooling (11), 1981

CTC81B22 Population 15 years and over by school attendance (2) and sex (3), showing highest degree, certificate or diploma (11), 1981

Legends

HIGHEST DEGREE, CERTIFICATE OR DIPLOMA (11)

1. Population 15 years and over
2. No degree, certificate or diploma
3. Secondary (high) school graduation certificate
4. Trades certificate or diploma
5. Other non-university certificate or diploma
6. University certificate or diploma below bachelor level
7. Bachelor's degree
8. University certificate or diploma above bachelor level
9. Medical degree (1)
10. Master's degree
11. Earned doctorate

---

(1) Degree in Medicine, Dentistry, Veterinary Medicine or Optometry.

HIGHEST LEVEL OF SCHOOLING (11)

1. Population 15 years and over
   Elementary-secondary only (1)
2. Less than Grade 9 (1)
3. Grades 9-13 without secondary school graduation certificate
4. Grades 9-13 with secondary school graduation certificate
5. Trades certificate or diploma
   Other non-university education only (2)
6. Without certificate or diploma
7. With trades certificate or diploma
8. With non-university certificate or diploma
   University (3)
9. Without certificate, diploma or degree
10. With university or other non-university certificate or diploma
11. With bachelor's degree or higher

---

(1) Includes "No schooling or kindergarten only".

(2) Refers to courses completed at post-secondary non-university institutions which normally require a secondary school graduation certificate or equivalent for entrance, as well as to other courses in related or like institutions (such as private trade schools or adult vocational centres) which may not require secondary school graduation for entrance.

(3) Includes those with both university and other non-university education, as well as those with university only.

SCHOOL ATTENDANCE (2)

1. Attending school full-time
2. Not attending school full-time (1)

---

(1) Includes "Attending school part-time".

SCHOOL ATTENDANCE (4)

1. Population 15 years and over
2. Not attending school
3. Attending school full-time
4. Attending school part-time

SEX (3)

1. Total
2. Male
3. Female

SECTION B

FILE SEQUENCE AND GEOGRAPHIC DEFINITIONS

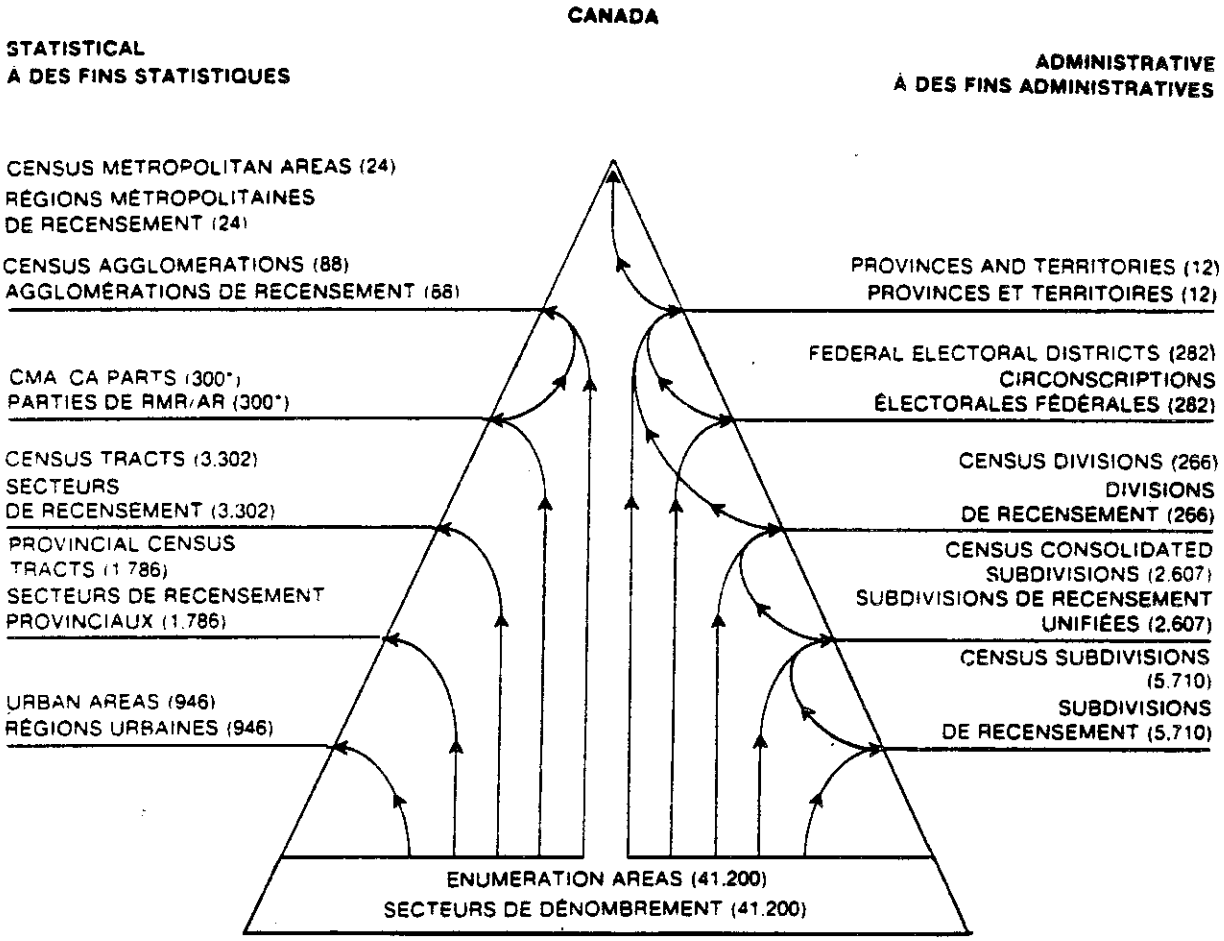
1) Sequence of 1981 Census User Summary Tape Files - Census Tracts (Basic Series)

Census tract (CT) files are sorted in the following ascending numeric sequence:

Keys	Position in record	Description
Major	51-52	Record type
Intermediate 1	1-2	Region and province code
Intermediate 2	17	Census metropolitan area/ census agglomeration selector
Intermediate 3	3-5	Census metropolitan area/ census agglomeration code
Minor	6-12	Census tract/provincial census tract name

Figure 1.

The 1981 Census Geographic Hierarchy
Ordre hiérarchique des unités géographiques du recensement de 1981



The numbers in brackets represent the number of each type of area

Les chiffres entre parentheses correspondent au nombre d'unites dans chaque categorie

* Approximate number

* Chiffres approximatifs

Record type	Description	Number of records	Geographic codes on each record	
			Position	Content
01	Canada total record	1	1-18	Zeroes
			19-49	Geographic name - Canada
			50	Indian Reserve - High imputation area indicator
			51-52	Record type
02	Provincial total records are in ascending numeric sequence; each record with type "02" is equal to the sum of record types "10" and "12" for a given province.	12	1-2	Region and province code
			3-18	Zeroes
			19-49	Province name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type
10	Census metropolitan area (CMA) and census agglomeration (CA) records are in ascending numeric sequence within province; each record with type "10" is equal to all records with type "13" for a given CMA or CA.	37	1-2	Region and province code
			3-5	CMA/CA code
			6-16	Zeroes
			17	CMA/CA selector
			18	CMA/CA population size group
			19-49	CMA/CA name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type

Record type	Description	Number of records	Geographic codes on each record	
			Position	Content
12	Provincial census tract(PCT) subtotals are in ascending numeric sequence; there is one record per province or territory; each record with type "12" is equal to all records with type"15" for a given province or territory.	12	1-2	Region and province code
			3-18	Zeroes
			19-49	Province name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type
13	Census tract (CT) records are sorted on the CT name within the census metropolitan area/census agglomeration in ascending numeric sequence.	3,277	1-2	Region and province code
			3-5	CMA/CA code
			6-12	CT name
			13-16	CT code
			17	CMA/CA selector
			18	CMA/CA population size group
			19-49	CMA/CA name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type

Record type	Description	Number of records	Geographic codes on each record	
			Position	Content
15	Provincial census tract(PCT) records (for areas not included in the CT programme) are sorted on the PCT name within the province in ascending numeric sequence.	1,782	1-2	Region and province code
			3-5	Code 000 = Not applicable. PCTs do not exist in CMAs; in CAs containing PCTs the CA code was changed to 000 in order to group PCTs together by name and province.
			6-12	PCT name
			13-16	PCT code
			17	Code 0 = Not applicable. PCTs do not exist in CMAs; in CAs containing PCTs the CA selector was changed to 0 in order to group PCTs together by name and province.
			18	Code 0 = Not applicable. PCTs do not exist in CMAs; in CAs containing PCTs the CA population size group was changed to 0 in order to group PCTs together by name and province.
			19-49	Province name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type

Note: There are 5,121 records on the census tract summary tape files covering all of Canada.

2) Geographic Definitions

Standard Geographical Classification (SGC)

The Standard Geographical Classification provides systematic identification for three types of geographic areas. These are:

(1) provinces and territories;

(2) census divisions (counties, regional municipalities, and regional districts, for example); and

(3) census subdivisions (usually municipalities).

The three area systems are hierarchically related. Census subdivisions (CSDs) aggregate to census divisions (CDs), which in turn aggregate to a province or a territory (PR). This relationship is reflected in the seven-digit SGC code:

PR	CD	CSD	
XX	XX	XXX	(X denotes one digit)

Census Subdivision

Census Division

Province or Territory

Remarks: For the 1981 Census, the Standard Geographical Classification is the sole official geographical classification system for dissemination purposes.

Due to a Statistics Canada policy of standardizing geographical codes wherever possible, census codes are no longer available. To uniquely identify any geostatistical area in Canada, it is necessary to employ the Standard Geographical Classification codes. For example, in 1976, a 4-digit census code uniquely identified census subdivisions within provinces. In 1981, it is necessary to use a 2-digit census division code plus a 3-digit census subdivision code to uniquely identify those census subdivisions.

Field: 1

Position: 1-2

Region and Province Code

This field presents the major political division of Canada. There are ten provinces and two territories coded as below. The first digit represents the geographic region of Canada to which the province belongs. Code notation is the Standard Geographical Classification (SGC) code and is assigned geographically from east to west. In census tabulations, provincial tables include the Yukon and Northwest Territories.

Code Assignment

Region	Province	Code
Canada	Total	00
Atlantic	Nfld.	10
	P.E.I.	11
	N.S.	12
	N.B.	13
Quebec	Que.	24
Ontario	Ont.	35
Prairies	Man.	46
	Sask.	47
	Alta.	48
British Columbia	B.C.	59
Territories	Yukon	60
	N.W.T.	61

Field: 2

Position: 3-5

Census Metropolitan Area/Census Agglomeration (CMA/CA)

This field presents geostatistical areas created by Statistics Canada.

Census Metropolitan Area (CMA)

Refers to the main labour market area of an urbanized core (or continuously built-up area) having 100,000 or more population. CMAs are created by Statistics Canada and are usually known by the name of the urban area forming their urbanized core. They contain whole municipalities (or census subdivisions). CMAs are comprised of (1) municipalities completely or partly inside the urbanized core; and (2) other municipalities if (a) at least 40% of the employed labour force living in the municipality works in the urbanized core, or (b) at least 25% of the employed labour force working in the municipality lives in the urbanized core.

Since a CMA must contain whole census subdivisions, its limits may fall within, or extend beyond, the actual labour market area. The differences may be significant in those parts of Canada where census subdivisions cover particularly large areas of land. Census metropolitan areas may also differ from Metropolitan Areas designated by local authorities for planning or other purposes.

Remarks: CMAs remain unchanged from 1976 except for minor adjustments to respect new municipal limits. Trois-Rivières, Quebec, becomes Canada's 24th CMA as a result of recent growth in its urbanized core.

Census Agglomeration (CA)

Refers to the main labour market area of an urbanized core (or continuously built-up area) having between 10,000 and 99,999 population. CAs are created by Statistics Canada and are usually known by the name of the urban area forming their urbanized core. They contain whole municipalities (or census subdivisions). CAs are comprised of (1) municipalities completely or partly inside the urbanized core; and (2) other municipalities if (a) at least 40% of the employed labour force living in the municipality works in the urbanized core, or (b) at least 25% of the employed labour force working in the municipality lives in the urbanized core.

Since a CA must contain whole census subdivisions, its limits may fall within, or extend beyond, the actual labour market area. The differences may be significant in those parts of Canada where census subdivisions cover particularly large areas of land.

Remarks: Census agglomerations are now delineated according to the same criteria as census metropolitan areas (CMAs) and differ only in the size of their urbanized cores (CMAs having 100,000 or more population). Twenty-four CAs have been added to the programme as a result of this change. At the same time, 23 CAs have been deleted from the programme as a result of raising the minimum urbanized core population from 2,000 to 10,000. One CA, Trois-Rivières, Quebec, has been transferred to the CMA programme as a result of recent growth in its urbanized core. The net effect of the above changes has been to maintain the total number of CAs at 88.

Note: If positions are zeros, the EA is not part of a CMA or a CA.

See list of census metropolitan areas and census agglomerations on the following pages.

CENSUS METROPOLITAN AREAS (CMA) and CENSUS AGGLOMERATIONS (CA)

SGC CODE	NAME
CENSUS METROPOLITAN AREA	
001	ST.JOHN'S
205	HALIFAX
310	SAINT JOHN
408	CHICOUTIMI - JONQUIÈRE
421	QUEBEC
442	TROIS-RIVIERES
462	MONTREAL
505	OTTAWA - HULL
532	OSHAWA
535	TORONTO
537	HAMILTON
539	ST. CATHARINES - NIAGARA
541	KITCHENER
555	LONDON
559	WINDSOR
580	SUDBURY
595	THUNDER BAY
602	WINNIPEG
705	REGINA
725	SASKATOON
825	CALGARY
835	EDMONTON
933	VANCOUVER
935	VICTORIA
CENSUS AGGLOMERATION	
005	CARBONEAR
010	GRAND FALLS
015	CORNER BROOK
025	LABRADOR CITY
105	CHARLOTTETOWN
110	SUMMERSIDE
210	KENTVILLE
215	TRURO
220	NEW GLASGOW
225	SYDNEY
230	SYDNEY MINES
305	MONCTON
315	OROMOCTO
320	FREDERICTON
328	BATHURST

CENSUS METROPOLITAN AREAS (CMA) and CENSUS AGGLOMERATIONS (CA)

SGC CODE	NAME
CENSUS AGGLOMERATION (Continued)	
330	CAMPBELLTON
335	EDMUNDSTON
404	RIMOUSKI
405	RIVIERE-DU-LOUP
406	BAIE-COMEAU
411	DOLBEAU
412	SEPT-ILES
428	SAINT-GEORGES
430	THETFORD MINES
433	SHERBROOKE
435	MAGOG
438	ASBESTOS
440	VICTORIAVILLE
444	SHAWINIGAN
446	LA TUQUE
447	DRUMMONDVILLE
450	GRANBY
452	SAINT-HYACINTHE
454	SOREL
456	JOLIETTE
459	SAINT-JEAN-SUR-RICHELIEU
465	SALABERRY-DE-VALLEYFIELD
468	LACHUTE
475	SAINT-JEROME
480	VAL-D'OR
485	ROUYN
501	CORNWALL
502	HAWKESBURY
508	SMITHS FALLS
512	BROCKVILLE
515	PEMBROKE
517	PETAWAWA
521	KINGSTON
522	BELLEVILLE
524	TRENTON
527	COBOURG
529	PETERBOROUGH
530	LINDSAY
543	BRANTFORD
550	GUELPH
552	FERGUS
553	STRATFORD
556	CHATHAM
557	LEAMINGTON

CENSUS METROPOLITAN AREAS (CMA) and CENSUS AGGLOMERATIONS (CA)

SGC CODE	NAME
CENSUS AGGLOMERATION (Concluded)	
562	SARNIA
566	OWEN SOUND
568	BARRIE
569	ORILLIA
571	MIDLAND
575	NORTH BAY
584	HAILEYBURY
590	SAULT STE. MARIE
598	KENORA
607	PORTAGE LA PRAIRIE
625	FLIN FLON
640	THOMPSON
715	MOOSE JAW
720	SWIFT CURRENT
735	NORTH BATTLEFORD
745	PRINCE ALBERT
805	MEDICINE HAT
910	TRAIL
915	KELOWNA
918	VERNON
925	KAMLOOPS
930	CHILLIWACK
938	NANAIMO
940	PORT ALBERNI
943	COURTENAY
945	POWELL RIVER
955	PRINCE RUPERT
965	TERRACE
970	PRINCE GEORGE

Field: 3

Position: 6-12

Census Tract/Provincial Census Tract Name

This field provides the official number assigned by the census for each census tract and provincial census tract.

Generally census tracts are assigned a three-digit number in ascending sequence within a CMA or CA. Where a census tract is split into two or more parts, the three-digit number is followed by a decimal point and a further two digits identifying the splits,

e.g.: 309.01
309.02

Provincial census tracts are assigned a four-digit number in ascending sequence within a province. Where a PCT is split into two or more parts, the four-digit number is followed by a decimal point and a further two digits identifying the splits. Gaps exist in the numbering. These gaps are a result of two factors. Initially PCTs included CTs; however, the decision was made to restrict PCTs to those areas not included in the Census Tract Programme. Furthermore PCTs are retired as the census tract coverage area is expanded.

Provincial census tract name	Province name	Province code
0001 -0101.04	Newfoundland	10
0200 -0220	Prince Edward Island	11
0300 -0451	Nova Scotia	12
0717 -0826	New Brunswick	13
1000 -2232	Quebec	24
3000 -4481	Ontario	35
5000 -5194	Manitoba	46
6000 -6193.02	Saskatchewan	47
7000.01 -7315	Alberta	48
8000 -8403	British Columbia	59
9000 -9003	Yukon	60
9100 -9105	Northwest Territories	61

Not all PCTs in each range are currently used.

Field: 4

Position: 13-16

Census Tract/Provincial Census Tract Code

Census Tract (CT)

Refers to a permanent small census geostatistical area established in large urban communities with the help of local specialists interested in urban and social science research. Census tracts are reviewed and approved by Statistics Canada according to the following criteria:

(a) the boundaries must follow permanent and easily recognized lines on the ground;

(b) the population must be between 2,500 and 8,000, with a preferred average of 4,000 persons, except for census tracts in the central business district, major industrial zones, or in peripheral rural or urban areas that may have either a lower or a higher population;

(c) the area must be as homogeneous as possible in terms of economic status and social living conditions; and

(d) the shape must be as compact as possible.

All census metropolitan areas, all census agglomerations with a city having a population of 50,000 or more, and all other cities of at least 50,000 population at the previous census are eligible for a census tract programme.

Remarks: For the 1981 Census, four urban centres have been added to the Census Tract Programme. They are North Bay, Ontario; and Kamloops, Kelowna, and Prince George, British Columbia.

Provincial Census Tract (PCT)

Refers to a permanent small census geostatistical area of rural and/or urban type. PCTs exist in the areas not included in the Census Tract Programme. Populations of PCTs generally vary between 3,000 and 8,000 with a preferred average of 5,000. Boundaries, as much as possible, follow permanent physical features and/or geographic units suggested by the provinces.

CODE: The four-digit numeric code assigned to each CT/PCT allows identification of each type of census tract.

Description	Code
Census tract code	0001-6999
Provincial census tract code	7000-9999

For a detailed listing of census tracts and provincial census tracts, see Enumeration Area Reference Lists (Catalogue Nos. 99-913 to 99-917).

Field: 5

Position: 17

CMA/CA Selector

This field identifies a given EA as belonging to a CMA or a CA as follows:

Code	Description
1	CMA
2	CA
0	not a CMA/CA

Field: 6

Position: 18

CMA/CA Population Size Group

This field is a population size descriptor. It distributes all the census agglomerations and census metropolitan areas in population size groups.

Population	Size code
10,000 - 24,999	7
25,000 - 49,999	6
50,000 - 99,999	5
100,000 - 249,999	4
250,000 - 499,999	3
500,000 - 999,999	2
1,000,000 and over	1
(not a CMA/CA)	0

Field: 7

Position: 19-49

This field contains the name of the geographic area.

Field: 8

Position: 50

Indian Reserve - High Imputation Area Indicator

Indian Reserves KAHNAWAKE 14, WEBIQUI, WUNNUMIN 2, KINGFISHER 1, PEIGAN 147, COWICHAN 1, THEIK 2, COWICHAN 9

For the geographic areas above, a significant portion of the data has been imputed. Consequently, these areas have been suppressed. However, the data have been included in all higher geographic subtotals and totals. For an assessment of the impact on data quality for these areas, the user is advised to refer to Data Quality - Total Population (Catalogue No. 99-904) and Data Quality - Sample Population (Catalogue No. 99-905).

In this field:

1 = Includes Indian Reserve(s) or part(s) of Indian Reserve(s) identified as high imputation area(s).

Blank = Does not include Indian Reserves or parts of Indian Reserves identified as high imputation areas.

The table on the following page indicates all the geographic areas in question.

1981 Census - Indian Reserves - High Imputation Areas

Recensement de 1981 - Réserves indiennes - Régions à fort taux d'imputation

Census subdivision(s) (CSD) Subdivision(s) de recensement (SDR)	Census division(s) (CD) Division(s) de recensement (DR)	Census division(s) (CD) code Code de division(s) de recensement (DR)	Census subdivision(s) (CSD) code Code de subdivision(s) de recensement (SDR)	Enumeration area(s) (EA) Secteur(s) de dénombrement (SD)	Federal electoral district (FED) Circonscription électorale fédérale (CÉF)	Region, province and federal electoral district (FED) code Code de région, province et circonscription électorale fédérale (CÉF)	Census tract(s) (CT)/provincial census tract(s) (PCT) name Nom de secteur(s) de recensement(SR)/ secteur(s) de recensement provincial (SRP)	Census metropolitan area(s) (CMA)/ census agglomeration(s) (CA) Région(s) métropolitaine(s) de recensement (RMR)/ agglomération(s) de recensement(AR)
Kahnawake 14*	Laprairie	2466	2466820*	110-120*	Châteauguay	24013	CT 832*	Montréal
Nebiqui*	Kenora District	3560	3560079*	411*	Kenora-Rainy River	35034	PCT 4429*	...
Nunnumin 2*	Kenora District	3560	3560072*	412*	Kenora-Rainy River	35034	PCT 4429*	...
Kingfisher 1*	Kenora District	3560	3560098*	420*	Kenora-Rainy River	35034	PCT 4429*	...
Peigan 147*	Division No. 3	4803	4803801*	363,364*	Lethbridge-Foothills	48014	PCT 7011*	...
Cowichan 1*	Cowichan Valley Regional District	5919	5919807*	219,223,224,226*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...
Theik 2*	Cowichan Valley Regional District	5919	5919818*	221*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...
Cowichan 9*	Cowichan Valley Regional District	5919	5919806*	222*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...

. Not applicable. - N'ayant pas lieu de figurer.

Indicates area suppression due to high non-response. - Indique les régions supprimées en raison du taux élevé de non-réponse.

Field: 9

Position: 51-52

Record Type

Record type		Code
Canada		01
Provinces		02
Remainder-	Residual total by province for census subdivisions of less than 5,000 population	03
Remainder-	Non-census metropolitan areas (residual total by province of census subdivisions outside census metropolitan areas)	03
Remainder-	Non-census metropolitan areas (residual total by province of census tracts and provincial census tracts outside census metropolitan areas)	03
Census metropolitan areas and census agglomerations		10
Provincial census tract subtotals		12
Census tracts (census metropolitan areas and census agglomerations)		13
Provincial census tracts		15
Census divisions		16
Census subdivisions		17
Federal electoral districts		18
Enumeration areas		19

SECTION C

GEOGRAPHIC ORGANIZATION

The organization of the User Summary Tape files and microfiche for the 1981 Census is as follows:

Census Tract (CT)/Provincial Census Tract (PCT) Series

- Tables include data for census tracts, provincial census tracts, census metropolitan areas (CMAs) and census agglomerations (tracted CAs).
- The beginning of the User Summary Tapes and microfiche include all total records, i.e. Canada, provinces, census metropolitan areas, census agglomerations and provincial census tract subtotals.

Information will be in the following order:

Geography	User Summary Tapes
Canada	
Provinces	Numeric sequence (east to west)
Census metropolitan areas	Numeric sequence within province
Census agglomerations	Numeric sequence within province
Provincial census tract subtotals	Single entry within province (east to west)
Census tracts (CMAs)	Alpha-numeric sequence within CMA and province
Census tracts (CAs)	Alpha-numeric sequence within CA and province
Provincial census tracts	Alpha-numeric sequence within province

Geography	Microfiche
Canada	
Provinces	Numeric sequence (east to west)
Census metropolitan areas	Alphabetic sequence within province
Census agglomerations	Alphabetic sequence within province
Provincial census tract subtotals	Single entry within province (east to west)
Census tracts (CMAs)	Alpha-numeric sequence within CMA and province
Census tracts (CAs)	Alpha-numeric sequence within CA and province
Provincial census tracts	Alpha-numeric sequence within province

Each CT/PCT level tape record will contain the following geographic identification:

Region and province code

Census metropolitan area (CMA)/census agglomeration (CA) code - Standard Geographical Classification (SGC)

CT/PCT name

Census tract (CT)/provincial census tract (PCT) code

CMA/CA selector

CMA/CA population size group

CMA/CA name

Indian Reserve - High imputation area

Record type

SECTION D

SUPPLEMENTARY INFORMATION

CONFIDENTIALITY AND RANDOM ROUNDING

The Statistics Act states that no employee of Statistics Canada "... shall disclose or knowingly cause to be disclosed, by any means, any information obtained under this Act in such a manner that it is possible from any such disclosure to relate the particulars obtained from any individual return to any identifiable individual person, business or organization." (section 16 (1) (b), Statistics Act, 1970-71). The continuing development of new data storage systems and of flexible, generalized retrieval software, and the size of the 1981 Census tabulation and publication program make it difficult to use manual methods to ensure compliance with the Statistics Act. Thus, a technique known as "random rounding" is applied at the final stage of tabulations for all 1981 Census tabulations (including User Summary Tapes/Fiche). Under this method, all figures including totals are randomly rounded (either up or down) to a multiple of "5".

Although the tables subjected to random rounding appear similar to tables whose entries have been conventionally rounded, the process is different. In random rounding, the decision as to whether the last digit in a number will be rounded up or down (to a 0 or a 5) is determined by chance rather than by rules based on the value of the number. This aspect of the process generally introduces sufficient uncertainty into the last digit of the number to provide strong protection against direct, residual or negative disclosures without adding significant error to the census data. However, since totals are independently rounded they do not necessarily equal the sum of individual rounded figures in distributions. Minor differences can be expected for corresponding totals and cell values in various reports. Also, percentages, which are calculated on rounded figures, do not necessarily add to the total. Similarly, any total or cell value of a table which is an aggregation of other tables may differ from the sum of the corresponding rounded values contained in the component tables as these are all rounded independently.

Of concern to some users is that small cell counts may suffer a significant distortion as a result of random rounding and that this will be magnified when these same data cells are aggregated. This distortion is the protection against disclosure and individual data cells containing these small numbers may lose their precision as a result. Since the rounding is of a random nature, however, when data cells are re-aggregated by the user the rounding errors tend to cancel out. Thus aggregations can be used with confidence.

In addition to random rounding, for certain very small areas, to avoid publishing meaningless and potentially misleading data, and to absolutely avoid disclosure, a procedure referred to as "area suppression" has been adopted. Basically, the geographic area itself, as well as all data, is dropped completely from the tabulation in cases where there are fewer than 50 persons for self-enumeration areas and fewer than 25 persons for canvasser areas. Suppressed data are, however, included in the appropriate higher aggregate subtotals and totals. "Area suppression" is applied only to the sample data file, affecting the Profile Series B of bulletins and all of the User Summary Tape/Fiche program. One further extension of this concept is applied in the case of income distributions, where areas are deleted if the population concerned is less than 250. This applies only to the User Summary Tape/Fiche program.

The actual census tract (CT) or census subdivision (CSD) suppressed due to the rule described is indicated in the appendix to each CT Series B bulletin (Catalogue Nos. 95-946 to 95-981) and similarly in the "all-CSD" Profile Series B bulletins (Nos. E-571 to E-582). Basic population counts, land area and other data collected on a 100% basis for these "missing" or suppressed entities can be obtained from the corresponding Profile Series A of bulletins (Catalogue Nos. 95-905 to 95-940 and E-559 to E-570, respectively) or tape and fiche program. (See Products and Services of the 1981 Census of Canada.)

Further, for certain subject-matter areas in the national and provincial bulletin series - income and industry/occupation - users will note the suppression of distributions where less than 250 persons or units are involved. In this case, the total area concerned is not suppressed, and as in "area suppression", such suppressed information is included in higher aggregates.

Further slight variations may exist in certain other circumstances, and more complete details on suppression will be contained in the Summary Guide - Sample Population (Catalogue No. 99-903).

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables 100% data no suppression	Number of geographic records - 2B variables - 20% Sample Data (excluding income)** Suppression based on less than 25/50 persons	Number of geographic records - 2B variables - 20% Sample Data - Income Distributions Suppression based on less than 250 persons
ENUMERATION AREAS (EAs)			
Canada	1	1	...
Provinces	12	12	...
Federal Electoral Districts (1976 representation)	282	282	...
Enumeration Areas	41,197	38,233	...
Total	41,492	38,528	...
CENSUS SUBDIVISIONS (CSDs)			
Canada	1	1	1
Provinces	12	12	12
Census Divisions	266	266	266
Census Subdivisions	5,710	5,372	4,564
Total	5,989	5,651	4,843
CENSUS TRACTS (CTs)/ PROVINCIAL CENSUS TRACTS (PCTs)			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas/ Census Agglomerations	37	37	37
Provincial Census Tract Subtotals	12	12	12
Census Tracts	3,302	3,277	3,253
Provincial Census Tracts	1,786	1,782	1,782
Total	5,150	5,121	5,097

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in Income Tables with no distributions.

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

... Not applicable.

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables 100% data no suppression	Number of geographic records - 2B variables - 20% Sample Data (excluding income)** Suppression based on less than 25/50 persons	Number of geographic records - 2B variables - 20% Sample Data - Income Distributions Suppression based on less than 250 persons
CENSUS SUBDIVISIONS (COMPONENTS) FOR CMAs			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas	25	25	25
Census Subdivisions	365	351	338
Residual by Province	12	12	12
Total	415	401	388
CENSUS TRACTS FOR CMAs			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas	25	25	25
Census Tracts	3,032	3,008	2,988
Residual by Province	12	12	12
Total	3,082	3,058	3,038

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in Income Tables with no distributions.

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

. . . Not applicable.

SAMPLING AND WEIGHTING

The 1981 Census data were collected either on a 100% basis (i.e. from all households), or on a sample basis (i.e. from only a random sample of households) with data weighted to provide estimates of the entire population. The information contained in this User Summary Tape/Fiche package was collected on a 20% sample basis and then weighted up to compensate for sampling.

The weighting system used in the 1981 Census (as in the 1971 and 1976 Censuses) is the raking ratio estimation procedure. This is an iterative procedure designed to ensure that sample estimates for certain basic subgroups of the population agree with the corresponding population totals. This is intended to not only improve the consistency between 100% and sample data tabulations but to improve the reliability of estimates from the sample.

This procedure will ensure consistency between sample estimates and population values for the chosen subgroups and for combinations of these subgroups. However, although the procedure will tend to improve consistency for smaller subgroups it will not ensure consistency for these smaller groups, nor for groups with characteristics not used as controls. For any given geographic area, the weighted population total or subtotal may differ from that shown in reports containing data collected on a 100% basis.

With some minor exceptions, the population or universe (persons, households, dwellings or families) totals for Canada, the provinces and territories and census divisions, for sample and 100% data will coincide since such counts were used as controls in the weighting procedure.

DATA QUALITY

Introduction

Any census data will be subject to error. Some of the errors will tend to cancel out over a large number of cases (i.e. for larger cells) as errors will be made in both directions (i.e. random errors). In general the proportion or rate of net (i.e. uncancelled) random error increases as the population or cell size decreases. Thus small data values should be used with some caution.

Other of the errors will tend not to cancel out as they will have a tendency to occur in one direction more than another (systematic errors, for example, question wording which invites errors in one direction more than in the other) and will result in a bias.

The data contained in this file are subject to coverage errors, response errors, processing errors and to sampling errors, in addition to any errors introduced by random rounding.

Coverage Error

A coverage error occurs in the census whenever a person or a household is missed completely or counted more than once. Since overcoverage is expected to be fairly rare in relation to undercoverage, the net effect of such errors is to introduce a downward bias in census figures, so that the published census estimates tend to underestimate the actual population.

A special study was undertaken in relation to the 1981 Census to measure the extent of the bias due to undercoverage. This study estimated the overall undercoverage rate to be of the order of 2% of the total population. It also indicated that undercoverage is higher in certain segments of the population, e.g., young male adults and recent immigrants. Similar trends were obtained in connection with the 1976 Census.

Response Error

A response error occurs when the response recorded is incorrect. Such errors may occur due to the respondent misinterpreting the question, inadvertently checking the wrong box, or even consciously checking the wrong box. Contributing to this error may be the questionnaire wording or organization, or the training and attitude of enumerators.

One indicator of the quality of the data is the "response rate". A response rate in this case is defined as the number of times the value for the characteristic was obtained from the respondent divided by the number of times it should have been obtained. This measure gives an indication of response quality, and in turn, of the extent of imputation required for non-response.

Table 1 below presents the response rates obtained in the 1981 Census for the stated characteristics.

Table 1: Response Rates for Selected Characteristics in the 1981 Census

Characteristic	Response rate (%)
Age	98.9
Age at First Marriage	91.9
Bathrooms	99.0
Children Ever Born	95.8
Class of Worker	95.4
Condition of Dwelling	98.3
Full-time/Part-time Weeks Worked	92.4
Highest Degree, Certificate or Diploma	98.1
Highest Grade of Elementary or Secondary	92.9
Hours Worked in Reference Week	97.5
Household Maintainer	98.5
Incorporation Status	91.2
Industry	96.6
Labour Force Activity	94.1
Length of Occupancy	99.3
Main Type of Heating Equipment	97.3
Marital Status	98.7
Mobility Status	96.2
Mother Tongue	98.9
Number of Rooms	98.9
Occupation	95.8
Period of Construction	97.6
Principal Heating Fuel	97.0
Principal Water Heating Fuel	97.1
Province, CD, CSD of Residence in 1976	95.2
Relationship to Person 1	99.2
School Attendance	98.2
Sex	99.2
Structural Type	99.6
Tenure	99.1
Tenure - Condominium	96.2
Weeks Worked	94.7
When Last Worked	96.5
Years of Other Non-University Education	95.9
Years of University	97.0

Processing Error

Processing errors can occur when write-in answers are coded, when responses on the questionnaire are transcribed to be read by the computer, and when imputations are done either for non-response or for edit rejects.

Sampling Error

Data based upon responses collected on a sample basis and then weighted are subject to error due to the fact that the distribution of characteristics within the sample will not usually be identical to the distribution of characteristics within the population from which the sample has been selected.

The potential error that sampling has introduced will vary according to the relative scarcity of the characteristics in the population. For large cell values the potential error due to sampling, as a proportion of the cell value, will be relatively small. For small cell values this potential error, as a proportion of the cell value, will be relatively large.

Table 2 provides approximate measures of the error due to sampling. These measures are intended as a general guide only.

Table 2: Approximate Standard Error Due to Sampling for 1981 Census Sample Data

Cell value	Total number of persons, households, dwellings or families in geographic area									
	500	1,000	5,000	10,000	20,000	50,000	100,000	250,000	1,000,000	5,000,000 or over
50	15	15	15	15	15	15	15	15	15	15
100	20	20	20	20	20	20	20	20	20	20
200	25	25	30	30	30	30	30	30	30	30
500	-	30	40	45	45	45	45	45	45	45
1,000	-	-	60	60	60	65	65	65	65	65
2,000	-	-	70	80	85	90	90	90	90	90
5,000	-	-	-	100	120	135	140	140	140	140
10,000	-	-	-	-	140	180	190	195	200	200
20,000	-	-	-	-	-	220	255	270	280	280
50,000	-	-	-	-	-	-	315	400	435	445
100,000	-	-	-	-	-	-	-	490	600	625
500,000 or over	-	-	-	-	-	-	-	-	1,000	1,340

Users wishing to determine the approximate error due to sampling for any given cell of data based upon the 20% sample should follow the following procedures:

(a) A tabulation within this file will typically apply to a universe of persons, households, dwellings or families. It is first necessary to establish the total count for the particular geographic level - census tract, census subdivision, census division, province, etc. - to which the cell under consideration applies.

(b) Choose the column in Table 2 whose heading is closest in value to the universe total count for the geographic area.

(c) Choose the row within the column in Table 2 whose heading is closest to the value of the given cell in the census tabulation. The value within the column in this row will be the approximate standard error due to sampling for the cell under consideration.

The effect of the particular sample design and weighting procedure used in the 1981 Census will vary, however, from one characteristic to another. The standard error values in the above table may, therefore, understate or overstate the error due to sampling. The sample selected in the census is one of households rather than one of persons. In assessing the potential error due to sampling, for characteristics of persons, it is necessary to consider whether or not the response of all persons within the household will be similar. If they are not (uncorrelated), then the sampling error will tend to be lower. If they are (correlated) - e.g. migration - then the sampling error will tend to be higher.

For households, families, dwellings and uncorrelated person characteristics, when using these standard error values, the user can be reasonably certain that, for the enumerated population, the true value (discounting all forms of error other than sampling) lies within plus or minus twice the standard error (e.g., for a cell value of 1,000 for a geographic area with a population of 50,000 the range would be 1,000 + or-2X65 or 1,000 + or-130). For correlated person characteristics, the user can be reasonably certain that, similarly, the true value lies within plus or minus three times the standard errror (e.g., for a cell value of 5,000 for a geographic area with a population of 100,000 the range would be 5,000 + or-3X140 or 5,000 + or-420).

Factors which can be applied as an adjustment to these standard error values for each individual variable may be obtained by contacting the nearest Statistics Canada reference centre.

These adjustment factors, additional information on the census methodology - in particular on sampling and weighting - and a more comprehensive assessment of the quality of the census data collected on a sample basis will be included in Data Quality - Sample Population (Catalogue No. 99-905).

GEOGRAPHIC REFERENCE PRODUCTS

1981 Census of Canada: Enumeration Area Reference Lists

99-909 Census Divisions and Subdivisions, Urban and Rural - Atlantic Provinces

99-910 Census Divisions and Subdivisions, Urban and Rural - Quebec

99-911 Census Divisions and Subdivisions, Urban and Rural - Ontario

99-912 Census Divisions and Subdivisions, Urban and Rural - Western Provinces and the Territories

99-913 Census Tracts

99-914 Provincial Census Tracts - Atlantic Provinces

99-915 Provincial Census Tracts - Quebec

99-916 Provincial Census Tracts - Ontario

99-917 Provincial Census Tracts - Western Provinces and the Territories

99-918 Census Metropolitan Areas and Census Agglomerations, Components

Changes to Municipal Boundaries, Status and Names (Catalogue No. 12-201, Annual)

Standard Geographical Classification, 1981, Vol. I (Catalogue No. 12-567, Occasional)

Standard Geographical Classification, 1981, Vol. II (Catalogue No. 12-568, Occasional).

REFERENCE PRODUCTS

The 1981 Census Dictionary (Catalogue No. 99-901) contains the complete range of definitions for all variables and terms used in the 1981 Census data products. Of general interest would be information contained in Summary Guide - Total Population (Catalogue No. 99-902) and Summary Guide - Sample Population (Catalogue No. 99-903) which include lists and indexes of tables appearing in the data publications, as well as reproductions of the census questionnaire forms and basic indicators of data quality. Further details on the data quality may be obtained from Data Quality - Total Population (Catalogue No. 99-904) and Data Quality - Sample Population (Catalogue No. 99-905).

A wide range of other analytical and reference products are available and described, along with information on data products and available services, in Products and Services of the 1981 Census of Canada.

SECTION E

SPECIAL NOTES

Census Family Type Data

In previous censuses, the primary family was defined as the family of the head of the household. In 1981, the criterion for determining family type was changed. A new question was added to the census questionnaire to determine a person responsible for paying the rent, or mortgage, or taxes, or electricity, and is used to identify primary and secondary families.

Due to improvements in the method of determining Census Family Type implemented for the 1981 Census, caution should be used in comparing the distribution of primary and secondary families with data from previous censuses. For example, census families in private households where the person responsible for household payments is residing elsewhere are automatically classified as secondary families in 1981. In previous censuses, first, the identification of these cases was not possible and second, some of these families were classified as primary families.

Further explanation of these changes is included in the Summary Guide - Total Population (Catalogue No. 99-902).

Geography Correction Notices

A1 Problem: Incorrect enumeration area allocation

(a) Alexander, LGD, Man. (SGC 4601071)	
- 1981 total population reads	2,793
should read	1,908
(b) Division No. 1, Unorganized, UNO, Man. (SGC 4601094)	
- 1981 total population reads	675
should read	1,560

A2 Problem: Incorrect census subdivision limits

(a) Meductic, VL, N.B. (SGC 1310013)	
- 1981 total population reads	234
should read	197
(b) Canterbury, PAR, N.B. (SGC 1310011)	
- 1981 total population reads	649
should read	686

A3 Problem: Incorrect census subdivision limits

(a) Hillsborough Park, VL, P.E.I. (SGC 1102017)	
- 1981 total population reads	1,227
should read	1,036

(b) East Royalty, VL, P.E.I. (SGC 1102020)
- 1981 total population reads 1,696
should read 1,863

(c) Sherwood, VL, P.E.I. (SGC 1102019)
- 1981 total population reads 5,681
should read 5,705

A4 Problem: Incorrect enumeration area allocation

(a) Chicken 224, R, Sask. (SGC 4718828)
- 1976 total population reads -A
should read 528

(b) Chicken 225, R, Sask. (SGC 4718823)
- 1976 total population reads 528
should read -
- 1981 total population reads 236
should read 26

(c) Division No. 18, Unorganized, UNO, Sask. (SGC 4718090)
- 1981 total population reads 11,991
should read 12,201

A5 Problem: Incorrect census subdivision formation

(a) Fond du Lac 229, R, Sask. (SGC 4718824)
should be deleted

(b) Fond du Lac 227, R, Sask. (SGC code not yet assigned) - should be created
- 1976 total population should read 452
- 1981 total population should read 494

A6 Problem: Incorrect census consolidated subdivision codes

(a) Alert Bay 1, R, B.C. (SGC 5943801)
- CCS code reads 5943029
should read 5943035

(b) Alert Bay 1A, R, B.C. (SGC 5943802)
- CCS code reads 5943029
should read 5943035

A7 Problem: Incorrect census subdivision limits

(a) Jacquet River, VL, N.B. (SGC 1314002)
- 1981 total population reads 778
should read 887

(b) Durham, PAR, N.B. (SGC 1314001)
- 1981 total population reads 2,656
should read 2,547

A8 Problem: Incorrect census subdivision limits

(a) Norway House 17, R, Man. (SGC 4622058)
- 1981 total population reads 1,812
should read 1,976

(b) Division No. 22, Unorganized, UNO, Man. (SGC 4622046)
- 1981 total population reads 2,703
should read 2,539

A9 Problem: Incorrect census subdivision limits

(a) Regina, C, Sask. (SGC 4706027)
- 1981 total population reads 162,613
should read 162,984

(b) Sherwood No. 159, RM, Sask. (SGC 4706026)
- 1981 total population reads 1,700
should read 1,329

A10 Problem: Incorrect census subdivision formation

(a) Kitimat 1, R, B.C. (SGC 5949803)
should be deleted

A11 Problem: Incorrect enumeration area allocation

Montréal, CMA

(a) CT 382.01 (code 3122)
- 1981 total population reads 3,513
should read 3,848

(b) CT 382.02 (code 3123)
- 1981 total population reads 5,212
should read 4,877

Inmates

Users should note that while some of the foregoing definitions of variables for which data were collected on a sample basis may specifically indicate the exclusion of "inmates", in actual fact, due to processing requirements, this is true of all population based tables in this report, even those involving cross-classification with data collected on a 100% basis (such as mother tongue). Moreover, the total population base for sample data, which can be referred to as the non-inmate population, will not exactly agree with the corresponding 100% figure, again due to a special processing requirement which lowered the final sample count by some 5,700 persons. Further details on this and any other processing changes affecting data comparability should be contained in Summary Guide - Sample Population (Catalogue No. 99-903) and Data Quality - Sample Population (Catalogue No. 99-905).

Mother Tongue

Comparability of the 1981 and 1976 Census mother tongue data is affected by a number of factors:

(a) There has been a decrease in the non-response rate from 1.9% in 1976 to 1.1% in 1981. As a result, an unknown portion of the change in any given mother tongue is due to a better enumeration of the population.

(b) In the 1976 Census the 1.9% of the population who did not respond to the mother tongue question had their language coded as Not Stated. In the 1981 Census the 1.1% of the population who did not respond to the question were assigned a specific language (see table below).

(c) Procedures for the removal of multiple responses, provided by 2.4% of the 1981 population, have changed for the 1981 Census. In 1976, an arbitrary and deterministic processing edit blanked the multiple responses, leaving only one valid response for each individual. In the 1981 Census, multiple languages were assigned a single response using probabilistic computer algorithms (see table below for the redistribution of combinations of English, French and Other).

(d) The category "Indian, n.o.s." includes persons who are of aboriginal ancestry and those of Asian Indian ancestry. In 1976, these persons were all coded to "Native Indian" as mother tongue.

Mother Tongue Information as Reported by Assigned Mother Tongue, Canada, 1981

Mother tongue as reported in 1981	1981 mother tongue assigned as		
	English	French	Other
English only	14,518,400	...	...
French only	...	6,077,695	...
Other only[1,2]	...	2,495	2,897,730
English and French[3]	103,595	104,650	...
English and other[2,4]	122,655	235	202,640
French and other[5]	...	9,305	12,945
English, French and other[3]	7,845	7,375	14,250
Non-response	165,970	47,340	48,060
Total	14,918,460	6,249,095	3,175,625

Totals may not equal the sum of components due to rounding.

1 "Other" includes all non-official languages.

2 A number of write-in languages were potentially changed to French by computer edit (e.g., "Belgian" could be either "French" or "Flemish").

3 In 1976, a random choice was made between "English and French".

4 In 1976, all records with "English and other" were assigned to "English".

5 In 1976, all records with "French and other" were assigned to "French".

Users of these data should be aware that there is some impact on the comparabiiity of the 1981 with 1976 Census data due to changes in processing procedures. However, problem-free information was provided by 96.5% of the population. Furthermore, for 98.0% of the population, the same data would have been published for 1981, whether the 1976 or the 1981 processing methodology had been used. For a more detailed explanation, users are referred to Data Quality -Total Population (Catalogue No. 99-904).

Number of Weeks Worked

The data on the number of weeks worked for the categories 40 to 48 weeks and 49 to 52 weeks should be used with caution. It appears that some respondents had a tendency to not include their weeks of paid leave for vacation or for other reasons in their total number of weeks worked, although instructed to do so. The 49 to 52 weeks category may therefore be underestimated.

Occupation

The data on Unit Groups 2791 ("Community College and Vocational School Teachers") and 2793 ("Post-secondary School Teachers, n.e.c.") for Quebec must be combined to permit comparisons with the corresponding groups for other provinces or with 1971 data because the Standard Occupational Classification misclassifies CEGEP professors in Unit Group 2793 when they should be included in 2791.

Ottawa-Hull Census Metropolitan Area

Due to the method of production used for the Basic Series of User Summary Tapes and microfiche, it was not feasible to produce a census metropolitan area total for areas crossing provincial boundaries. Consequently, for the census metropolitan area of Ottawa-Hull it is necessary to add together data for Ottawa-Hull from both the Ontario and Quebec parts in order to obtain a total. A total for the complete census metropolitan area of Ottawa-Hull is shown in the Profile Series as a different method of production was used.

Residual Totals

In the Special Series, where remainder or residual totals are shown, the total may be equal to the province or territory total. The problem arises in Prince Edward Island, the Yukon and Northwest Territories where there are no census metropolitan areas. Consequently, some repetition of data is unavoidable. A similar situation exists for census tracts in the Basic Series, where the provincial census tract subtotal is equal to the province or territory total for the above-mentioned areas.

Schooling Data

Comparisons of the 1981 Census schooling data with past censuses or with other sources should generally be restricted to uniform characteristics, and to similar temporal and population components. [1] General comparisons that are made should take note of the fact that the 1981 schooling data, in contrast to that for previous census years, exclude inmates of institutions, and are reported only for the population 15 years and over, in contrast with 1971 and earlier censuses which reported schooling figures for the population 5 years and over. More specifically, there is one main aspect of the 1981 schooling data which distinguish it from other sources.

The main aspect of the 1981 Census schooling data where comparability is affected is in the "other non-university education" category. The other non-university education concept differs from previous censuses and from other measures of the so-called post-secondary non-university concept in two respects. First, in contrast to the 1976 Census, this question now relates to all university transfer courses of community colleges, and the CEGEP general of Quebec; therefore, a shift in the data from university to non-university can be expected and does indeed occur between 1976 and 1981 (especially for the CEGEP population). Second, the 1981 question has been broadly conceptualized to encompass all non-university schooling beyond elementary or secondary, regardless of secondary school graduation. The 1981 other non-university education concept covers a broad spectrum of schooling that includes the conventional post-secondary areas as well as other training in the trades and vocational areas.

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[1] Users interested in historically comparable census education data for years 1971, 1976 and 1981 are referred to Special Bulletin, Catalogue No. 13-579: Historical Tables for Census Education Data: 1971, 1976 and 1981, to be released at a later date.

Standard Geographical Classification Codes

Due to a Statistics Canada policy of standardizing geographical codes wherever possible, census codes are no longer available. To uniquely identify any geostatistical area in Canada, it is necessary to employ the Standard Geographical Classification codes. For example, in 1976, a 4-digit census code uniquely identified census subdivisions within provinces. In 1981, it is necessary to use a 2-digit census division code plus a 3-digit census subdivision code to uniquely identify those census subdivisions.

Structural Type Data

The reporting of Structural Type of dwelling in any census or survey can be expected to be subject to potentially significant response error. This is perhaps due in part to the variety of sometimes complex structures, regional differences in terminology, and local real estate advertising. The level and nature of this error have been shown to vary according to the methodology used to collect the data. For the 1976 Census, the Structural Type was determined by the Census Representative. For the 1981 Census the Structural Type was determined by the respondent.

Analysis has shown that the 1976 data contained substantially fewer errors than the 1981 data for this variable. Comparisons between 1976 and 1981 Census data for Structural Type will therefore reveal certain inconsistencies. (Note: The count of dwellings is not in question, only how the total number of dwellings is broken down into Structural Type.) These inconsistencies will vary in degree from one geographic area to another and from one Structural Type to another.

Geographically the degree of error in dwelling classification is highest in the core areas of larger cities; those areas with older and converted or complex structures for which proper classification by respondents would be more difficult. The degree of error decreases as one moves outward from the core areas. Indeed there do not appear to be data quality problems in this regard for rural areas.

From the structural perspective the counts for Apartments in buildings with five or more storeys are believed to be relatively accurate. Counts for other types of dwellings in multiple unit structures (e.g., Apartments in buildings of less than five storeys and Row Houses), on the other hand, may contain varying degrees of error. For these dwellings there have been two types of misclassification. First, there are misclassifications among various types of the multiple unit structures. For example, Apartments in buildings of less than five storeys have frequently been classified as Row Houses, Semi-detached, etc. Second, there are some misclassifications between multiple and single structures. For example, a Duplex may have been misclassified as a Single Detached.

A substantial amount of the Structural Type error is misclassification among multiple unit structures. For this reason the user is advised to use the 1981 Census Structural Type data, whenever possible, by collapsing into four categories: Single Detached, Apartment in a building with five or more storeys, Movable (i.e. Mobile and Other Movable), and All Other. The error in the aggregated data will be reduced but it will not be eliminated. The misclassification of dwellings in multiple unit structures can be expected, where it occurs, to result in an underreporting for the "All Other" category and a compensating overreporting for Single Detached. The significance of this error (as a percentage) in the count of Single Detached can be expected to decrease as the proportion of true Single Detached in the geographic area increases.

The question is: "How can one determine the level of error in any given tabulation of Structural Type and is it possible to compensate or adjust for this error?". The answer will depend upon the tabulation and the specific use of the data.

For Enumeration Area level tabulations, for example, only the above general statements can be applied to the data. If the Enumeration Area is in a rural area, the data can be used with the same confidence as other data, with comparable cell sizes, for the Enumeration Area. On the other hand, if the Enumeration Area is in an urban core area with 50% of the reported dwellings in multiple unit structures, then the data on Structural Type would not be usable for any but the most general purposes, particularly for the full range of Structural Types.

For Census Tract, Census Subdivision, Census Division, Census Metropolitan Area, Province level tabulations, as examples, it is possible (with some cross-reference to other 1981 Census information and to 1976 Structural Type data) to determine whether for the particular tabulation there is a data quality problem for Structural Type, the degree of this problem, and most probably how the data have been misclassified.

The procedure is based upon Period of Construction data. These data, which were collected on a sample basis in the 1981 Census, permit the identification of new construction - i.e. of occupied dwellings constructed in the period 1976-1980 plus those constructed in the first five months of 1981. To the extent that dwelling stock is stable (ideally no conversions and no demolitions) over a five-year period, then adding the new construction - obtained from the 1981 Census data - to the 1976 Census Structural Type counts should yield values close to those for the 1981 Census. The degree to which these adjusted counts do not agree with 1981 counts by Structural Type should give a clear indication of the quality of the data - both 1981 and 1976.

Three basic steps are involved in making this assessment of the quality of the data:

(1) **Ascertain the 1976 Census geographic area corresponding to the 1981 Census geographic area for which Structural Type data are being tabulated.**

For many tabulations the 1976 and 1981 Censuses will correspond exactly in geography. To assist in this determination the user may refer to a variety of bulletins.

(i) **Census Divisions and Census Subdivisions**

1976: 92-802 to 92-805; 92-911 (Reference Maps)

1981: 93-901 to 93-912, Table 4; 99-907 (Reference Maps -CDs/CSDs)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps or by consulting the SGC manual Volume 1 (Appendix 2) Catalogue No. 12-567.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(ii) **Census Metropolitan Areas**

1976: 92-809; 92-811 (Reference Maps)

1981: 95-903; 99-906 (Reference Maps - CMAs/CAs)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(iii) **Census Agglomerations**

1976: 92-809; 92-811 (Reference Maps)

1981: 95-903; 99-906 (Reference Maps - CMAs/CAs)

Same as (ii) above except users should note that CAs experienced a change of definitional criteria between 1976 and 1981 that can greatly affect the CAs. These changes are over and above any changes to the boundaries of component CSDs.

(iv) **Census Tracts**

1976: 95-800 to 95-831 (Maps included)

1981: 95-905 to 95-940 (Maps included)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(v) **Federal Electoral Districts**

The Federal Electoral District level data cannot easily be assessed for the reason that 1976 data follow the 1966 Representation Order, and 1981 data are according to the 1976 Representation Order, except for 1976 bulletin 92-808, which does present basic structural type information according to the 1976 Representation Order. The corresponding bulletin in 1981 is Catalogue No. 95-901.

Minor differences in geographic boundaries which cannot be isolated should not invalidate the assessment. Substantial differences, however, would preclude proper assessment. (e.g., the Enumeration Area level data cannot be assessed for the reason that Enumeration Area boundaries differ greatly between 1976 and 1981.)

(2) **Bring together, for the given geographic area (or areas), the 1976 and 1981 Structural Type data with the 1981 data cross-tabulated by Period of Construction (sample data) and produce "adjusted" 1981 counts.**

For all Structural Types the newer construction (that with Period of Construction 1976-1981 or 1976-1980 plus 1981) reported in the 1981 Census must be added to the total for each Structural Type (or for some collapsed version) reported in 1976 to produce "adjusted" 1981 counts. Period of Construction data cross-tabulated with Structural Type are being specially prepared for use in carrying out this procedure. These tabulations will be available in March of 1983. Users of tape/fiche data should note that cross-tabulations of Period of Construction by Structural Type are planned at the Census Tract level (CTW81B22) and Census Subdivisions of 5,000 population and over (SPW81B13).

It should be noted that if there is no significant amount of new construction for the geographic area of interest (in which case the counts of total occupied private dwellings in 1981 and 1976 should be approximately equal) then Period of Construction data are not needed and this part of the procedure need not be applied.

(3) **Compare the 1981 Census counts by Structural Type with the adjusted 1981 Census counts by Structural Type and assess differences.**

If the geographic areas being compared are identical, then the 1981 counts and the adjusted 1981 counts should be similar. (For this comparison the two 1981 Apartment categories must be added to be comparable to the 1976 count of Apartments.) There will be many cases for which there will be differences - some small and some large. What must be done is to make some judgement of the possible reasons for a discrepancy.

Possible Reasons for Differences

(a) Dwellings constructed in the period January - May 1976 cannot be isolated in the 1981 data. Since occupied dwellings constructed in that period are included in the 1976 Census counts the adjusted 1981 counts will be higher than the published 1981 estimates.

If, in proportional terms, for any Structural Type there is a significant number of dwellings with Period of Construction of 1976-1981, then it may be necessary to readjust the counts to "correct" for the January - May 1976 construction. Without additional information, 5/60th of the 1976-1980 count or 5/65th of the 1976-1981 count should be subtracted from the earlier adjusted 1981 count. It should be remembered, however, that for small geographic areas such an adjustment may tend to be unreliable.

(b) It must be remembered that the Period of Construction data are based upon a sample and as such are subject to sampling error. A discussion of the impact of sampling error will be given with any 1981 Census Bulletins which include tabulations of sample data (e.g. Period of Construction) and in the publication Data Quality - Sample Population (Catalogue No. 99-905). The sampling error for most tabulations should not be sufficient to invalidate the assessment procedure but will explain some amount of any differences.

(c) The Period of Construction data are also subject to response error. The significance of such error for any given tabulations will depend upon the proportion of reported newer construction.

(d) Since tabulations being checked will be for occupied dwellings, differing vacancy rates for the 1976 and 1981 Censuses would result in a corresponding difference in occupied dwelling stock counts.

(e) Demolitions between the two censuses will cause the adjusted 1981 Census counts to be higher than the corresponding 1981 Census counts.

(f) Conversions (e.g., converting a Single Detached to Apartments) may legitimately result in a decrease in the count for one dwelling type and an increase in the count for another. Generally such conversions should not have been reported among the new construction.

All of items (a) to (f), with the possible exception of sampling errors, should individually manifest themselves by way of a difference in the estimated total occupied dwelling stock for the area (comparing the 1981 total with the adjusted 1981 total). Collectively there may be a cancelling effect (e.g., demolitions and conversions). These will also cause changes in the counts for particular Structural Types.

As a possible source of differences, response error will manifest itself not by a difference in estimated total occupied dwelling stock but by a shift in the count of dwellings between two or more Structural Types. If there is a major response error the shift will be obvious. The following hypothetical example will serve as an illustration.

Comparison of 1981 and Adjusted 1981 on Occupied Dwellings by Structural Type

Area	Apartments (000's)		Other Multiple (000's)		Single Detached (000's)	
	1981	Adj. 1981	1981	Adj. 1981	1981	Adj. 1981
A	260	361	130	30	20	19
B	385	400	53	40	10	8
C	150	155	36	35	40	41
D	78	78	24	24	56	56

For area A there is a significant response error which has manifested itself by a shift from Apartment (in 1976) to other types of dwellings in multiple unit structures, and, to a lesser degree, to Single Detached. It is reasonable to conclude that, for this area, the 1981 classification by Structural Type contains, as a minimum, the degree of error implied by the differences in the counts and that the adjusted 1981 counts more accurately reflect the Structural Type distribution for the area. At the same time it is also reasonable to conclude that classification problems were present in the 1976 Census as well. While the 1976 counts - based upon evaluation of 1976 and 1981 data - can be expected to be very much more accurate than the 1981 counts, in this case they may still contain non-negligible error. The largest proportion of such error will be among the multiple unit structures (Apartments plus Other Multiple in this example).

For area B there is likely also a response error with the same direction of misclassification as for area A. The adjusted 1981 counts can be expected to contain some amount of error, but because the data are much less inconsistent (than those for area A) the data can be used with much greater confidence.

For area C there are discrepancies, but these may be caused by a combination of problems. For this area the 1981 count of total occupied dwelling stock is 226. The adjusted 1981 count of total occupied dwelling stock is 231. Thus the majority of the apparent differences must be due to reasons other than response error. The most plausible source of the differences will be the Period of Construction data (see (a), (b) and (c) under Possible Reasons for Differences), although the conformity of the 1976 and 1981 geography should be verified.

For area D there are no differences and the data can be used with confidence.

It should be noted that collapsing of Structural Types, as in the illustration, should be done whenever possible as it is easier to assess the cause of differences for large cells. It should also be noted that shifts in the counts for Movable dwellings are very difficult to assess. These dwellings may have a higher than average demolition rate, they can be moved out of or into an area, and they can be converted perhaps more readily than other types of dwellings.

As part of the investigations which have resulted in this cautionary note, the above procedure was carried out for a sample of geographic areas. The results for a sample of Census Metropolitan Areas, as an example, showed that significant response error was isolated to specific municipalities, that for the majority of municipalities there was no identifiable data quality problem, and that where response errors apparently did occur, the shifts by Structural Type were immediately evident.

Further information on the quality of the Structural Type data will be included in Data Quality -Total Population (Catalogue No. 99-904).

Type of Household Data

Due to a change in the method of determining family type, implemented for the 1981 Census, caution should be used in comparing the distribution of primary and secondary families with data from previous censuses. Since the delineation of type of household is dependent upon family type, the same caution should be exercised in comparing the 1981 data for secondary family households with the corresponding figures in previous censuses.

An explanation of these changes, and if applicable, the impact of such changes on the data for household type in general, will be included in the Summary Guide - Total Population (Catalogue No. 99-902).

Zero Cells

In User Summary Tapes and microfiche, a cell containing a "zero" value may represent any one of the following:

(1) nil or zero.
(2) figures not appropriate or not applicable.

Due to the method of production it was not possible to use the standard symbols normally used in publications.